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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/526,656	03/03/2005	Luigi Resconi	FE 6048 (US)	5823
34872	7590	03/30/2006	EXAMINER	
BASELL USA INC. INTELLECTUAL PROPERTY 912 APPLETON ROAD ELKTON, MD 21921			LEE, RIP A	
			ART UNIT	PAPER NUMBER
			1713	

DATE MAILED: 03/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/526,656	<b>Applicant(s)</b> RESONI ET AL.	
	<b>Examiner</b> Rip A. Lee	<b>Art Unit</b> 1713	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>04-26-2005</u> . | 6) <input type="checkbox"/> Other: ____  |

## DETAILED ACTION

### *Double Patenting*

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1, 3-7, and 11-13 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-6 of copending Application No. 10/479,328. Although the conflicting claims are not identical, they are not patentably distinct from each other because of the following reasons.

The present claims are drawn to a process for polymerizing ethylene and 0.1-99 mole % of  $\alpha$ -olefin in the presence of a catalyst comprised of metallocene and aluminoxane. The bridged group 4 metallocene complex contains at least one thiapentalene ring having an aryl substituent at the 3-position of the heterocyclic ring, and substituent  $R^1$  and  $R^6$  of the carbocyclic rings are not hydrogen. The complex may also contain a mixed ring system, in which case, the other  $\pi$ -ligand is a 4-aryl substituted indenyl ligand in which substituent  $R^6$  is not hydrogen.

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Claims 1-6 of the copending application are drawn to a process for polymerizing 1-butene and 0-20 mole % of ethylene in the presence of a catalyst comprising a metallocene and aluminoxane. The metallocene is a bridged *bisthiapentalene* complex containing an aryl substituent at the 3-position of the heterocyclic ring, and substituents corresponding  $R^1/R^6$  of the carbocyclic rings are a substituent of formula  $CH_2R^1$ .

The transition metal component and type of polyolefin produced in both sets of claims are essentially the same. The present claims are generic to the instant claims in that they also include mixed ring metallocenes. As such, the claims of the instant application are generic to, *i.e.*, fully encompass, the claims of the copending application, and therefore, the claims of the instant application are anticipated by the claims of the copending application.

3. Claims 1-8 and 11-13 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 6-8 of copending Application No. 10/496,253. Although the conflicting claims are not identical, they are not patentably distinct from each other because of the following reasons.

Claims 6-8 of the copending application are drawn to a process for polymerizing at least 50 wt % of propylene and one or more alpha olefins in the presence of a catalyst comprising a metallocene and aluminoxane. The metallocene is a bridged *bisthiapentalene* complex containing an aryl substituent at the 3-position of the heterocyclic ring wherein substituent  $R^1$  is not hydrogen (structure (II)), or the metallocene is a mixed ring complex containing a thiapentalene ligand and a 4-arylindenyl ligand (structure (III)). The catalyst further contains an organoaluminum, and it may be supported on an inert support.

The transition metal component and type of polyolefin produced in both sets of claims are essentially the same. As such, the claims of the instant application are generic to, *i.e.*, fully encompass, the claims of the copending application, and therefore, the claims of the instant application are anticipated by the claims of the copending application.

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4. Claims 9 and 10 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims of copending Application No. 10/496,253 in view of Schottek *et al.* (U.S. 6,469,114).

The claims of the copending application do not list the type of support material, and the only requisite is that the support be inert. Schottek *et al.* discloses polymerization of olefins using catalysts containing similar thiapentalene-based metallocenes. Here, the inventors teach that a polyolefin is a suitable inert carrier for these polymerization processes (col. 18, line 67 and col. 19, lines 61-65). One having ordinary skill in the art would have found it obvious to use the polyolefin supports disclosed in Schottek *et al.* because these materials are disclosed to be sufficiently inert and therefore useful for polymerization processes. The claims of the copending application do not recite a gas phase process, however, it would have been obvious to one having ordinary skill in the art to use gas phase conditions with a supported catalyst, especially in light of the fact that Schottek *et al.* clearly discloses gas phase reaction conditions (col. 35, lines 36-39).

These are provisional obviousness-type double patenting rejections because the conflicting claims have not in fact been patented.

#### ***Information Disclosure Statement***

5. Foreign references on page 4 of the IDS were not considered because the documents could not be retrieved. Please check the patent numbers and resubmit another IDS with the correct patent numbers for consideration.

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The prior art made of record but not relied upon is considered pertinent to the Applicant's disclosure. The following references relate to polymerization processes using catalysts containing bithiapentalene and mixed ring thiapentalene/indenyl transition metal complexes. The aryl substituted thiapentalene complexes of the instant invention are not made obvious over the teachings of these patents.

Schottek *et al.* (U.S. 6,469,114)

Schottek *et al.* (U.S. 6,627,764)

Schottek *et al.* (U.S. 2003/0013913)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rip A. Lee whose telephone number is (571)272-1104. The examiner can be reached on Monday through Friday from 9:00 AM - 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reached at (571)272-1114. The fax phone number for the organization where this application or proceeding is assigned is (571)273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <<http://pair-direct.uspto.gov>>. Should you have questions on the access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll free).

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March 27, 2006



DAVID W. WU

ASSISTANT PATENT EXAMINER  
TECHNOLOGY CENTER 1700